

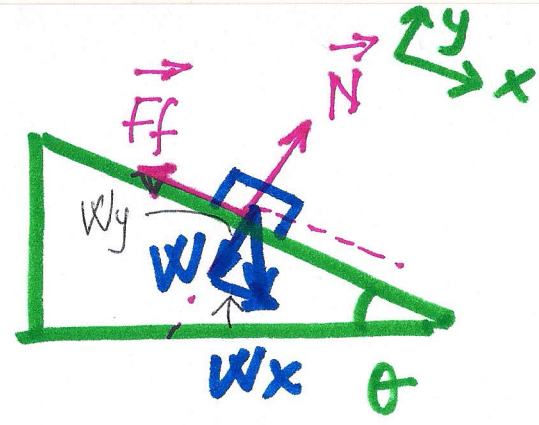
Pb 5

$\mu_d = 0.30$
 $m = 35 \text{ kg}$

$\mu_s = 0.45$

$\theta_1 = ?$

$\theta_2 = ?$



x direction:

$W_x = F_f$

$m \cdot g \cdot \sin \theta = \mu_s \cdot N$ (*)

y direction

$N = W_y = m \cdot g \cdot \cos \theta$ (**)

$m \cdot g \cdot \sin \theta = \mu_s \cdot m \cdot g \cdot \cos \theta \quad | : m \cdot g \cdot \cos \theta$

$\tan \theta_1 = \mu_s$

$\theta_1 = \tan^{-1}(\mu_s)$

$\theta_2 = \tan^{-1}(\mu_d)$